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it as fast as they like. That's better than hoarding it. When the money is spent it goes to someone and gets into circulation. We people whom circumstances compel to live on 30 cents a day would be glad to see all the old millionaires spending each \$70,000 a year on himself, or ten times that amount if he wants to. The money isn't lost."

- (a) State clearly what advantage the writer of the above probably imagined that the public derive from the extravagance of Mrs. Gould and other rich people.
 - (b) Explain the fallacy in the doctrine.
- (c) Show that the last sentence of the quotation is of no significance in the matter.

"Our neglect of the South American trade is simply scandalous. We buy a large amount from Brazil every year but sell her almost nothing, leaving her markets to be gobbled up by England and other European countries. We ought to subsidize a great merchant marine running to South America, and drive Europe out of a market which is naturally ours."

Show that a very plausible argument can be made for the contention that we should be cutting off our own noses if we were to drive Europe out of the markets of South America.

"The high rate of exchange makes exporting more than usually profitable. As a result, the supply of cotton for the foreign markets..., the price..., and so exports...." Fill out the blanks, applying the Law of Supply and Demand.

In the United States in 1870, gold coin was worth \$1.11 per dollar, silver coin \$1.23 per dollar, and greenbacks \$1.00 per dollar. Which, if any, must have been standard money?

In the United States in 1830, both gold and silver were freely coined at a ratio of 15 to 1, when the market ratio was 15.8 to 1.

- (a) Which metal did the mint overrate? Explain carefully.
- (b) Which of the two moneys, if any, must have been standard money?

DISCUSSION

PRESIDENT HARRY PRATT JUDSON, The University of Chicago:

Perhaps I look at some of these educational things from a rather old-fashioned point of view. These are the days of electives, when any student knows better than anybody else in the world what is best for him intellectually; and the number of things which the graduates of our modern colleges do not know is portentously large—and some of us think that that is somewhat important, also. Of course, there was a time when we thought that every educated man ought to know certain things. Perhaps we were wrong in our idea of those things; but it has been my conviction, and I have not yet escaped from it, that the fundamentals of economics should be among those things. It seems to me that every man who lays claim to literary culture should know at least the fundamental principles of this science.

Those who belong to the different departments in the university are apt, perhaps, each to hold that a study of the fundamentals of his own subject should be required. Of course, that is impracticable; and that puts out of account the idea of relative values in education. But if we could only dismiss from our minds the prepossessions of our special cases and consider different studies in the light of their bearing upon citizenship, I am convinced that the fundamentals of economics would be found appropriate to every scheme of liberal education. And, moreover, their value is enormous in the community which has so many difficulties to encounter. As a layman in this especial matter, I find in the average intelligent person, in the average writer in the public press, a painful lack of comprehension of some of these fundamentals that affect our national thinking. So we are made the prey of these fantastic social and economic delusions, which are so easily dissipated by one who is trained even partially in these things, but which sometimes are so dangerous.

Well, how shall the students in these days come to attack these things with enthusiasm? I did not intend to make a contribution to your discussion, but I was reading on the train, a day or two ago, an editorial written by a layman on questions that have been occupying educational thinkers for some months past, namely, why college students care so little for the intellectual side of their college life; and the suggestion of this editor rather struck me as having, after all, some little sense in it. He said: "How would it do for the professors to be interested in their work?" Possibly that might tend to make the students take a different view of some of these things. I have found that in those subjects, in those classes, in which the instructor is full of fire and is really interested in his class, the chances are about a hundred to one that the students are interested, too.

Professor J. Laurence Laughlin, The University of Chicago:

As early as 1878 I was placed in the post of teaching elementary economics at Harvard. As I have been thinking about this conference nothing has struck me so much as the improvement that has taken place in the work of teaching elementary economics. If I could only go to the university now, or could have gone then to the instructors that we have now, how much better economic preparation I should have. In fact, the pivotal difficulty in those days, in my opinion, was the training of the teacher. One of the fundamental things in teaching is a knowledge of the subject; and the teachers of that time had had no opportunity of being trained thoroughly and carefully in the principles of economics. The only preparation that was then considered remarkable was a residence of a year or two in Germany—a thing which at that time was quite rare. The obvious fact was the inadequate education of the instructors; there were no trained teachers.

Even so distinguished a man as Professor Dunbar had not had a techni-

cal economic training. A journalist, and editor of the Boston Daily Advertiser, he came out to Harvard University in 1870. That was practically the beginning of modern economic teaching in the United States. When I was an undergraduate with Professor Dunbar, the books we used were also significant of the time. One of them was Bowen's Political Economy. I do not suppose very many of you know that such a book exists. Then a few years later, John Stuart Mill's treatise was taken up in its entirety. I can remember that we began there with all told only two and a half courses. Later, I was really guilty of giving an advanced course and putting the members through Carey's three volumes of Social Science, for which I am painfully penitent.

It was doubtless quite natural that the teaching of economics at that time should have depended so much on the textbooks. That, it seems, must be attributed in the main to the lack of training and preparation of the instructors. There was, however, another element in the situation at that time which had its advantages. The classes were small, relatively speaking. The instructor, no matter what his textbook, was able to keep in close personal contact with the men. For years it seemed possible to teach sections of as many as 64, and still carry on questioning and discussion in the classroom, and to have written papers, which were corrected and handed back by the instructors. The methods of teaching which were used with relatively small sections in those early days, from 1878 to 1888, were very much the same methods which are now used, at least in the University of Chicago.

At first there did not seem to be very great difficulty in getting in close contact with the student; but in a few years, when numbers increased and I had an elective section of 250—the largest elective class then known at Harvard—difficulties arose. If I am not mistaken, the difficulties that we have to face now in the various universities are really due to that fact of the great increase in numbers. When the classes have become as large as four or five hundred it has seemed necessary to resort to some system of one lecture by a professor and two meetings with persons who quiz, or two lectures a week by the professor, and one quiz. I do not believe that system of teaching would ever have been adopted, by those who have given it thought, as the most desirable method, except under the stress of numbers and necessity. It seems to me largely a pis aller—a means of getting along as well as possible with the unexpectedly large increase of numbers, until a better method can be worked out.

Another phase of the movement was the development of theoretical work in economics. The thinking that has been going on in this country has made it impossible for a dry-as-dust instructor to settle down upon any routine of economics. The whole subject has been in a ferment; and to the present day it is in the process of transition. This fact has had an

unmistakable influence on the teaching in the subject; and I venture to say that from that fact some of the difficulties in teaching the elementary work have arisen. After a while each young instructor, when he went out to another institution, felt it necessary to give his own personal and individual philosophy of economics. Each teacher felt he must write his own textbook. I question the wisdom of that process for introductory students. But in the course of time the thinking has come to have more solidarity, so that at the present day it is possible to get together by a process of eclecticism a certain general body of organized thinking which we can give to undergraduate students without necessarily precipitating them into theoretical difficulties in which there are obviously differences of opinion-difficulties which would be better reserved for advanced classes. The point I wish to make, therefore, is that out of the development of active economic thinking-a most desirable thing in itself-came some difficulties that have obviously made the teaching of introductory economics increasingly difficult.

Another idea has grown upon my mind. For a time, I think the earlier courses of economics were taken because they were assumed to be necessary for citizenship. They were set up as useful things. If I am not mistaken, a change has come over the community; and it is now recognized, or perhaps it has only recently been discovered, that economics should today be taken as a discipline quite as much as a matter of useful information. In that respect economics has come to enjoy a peculiar and fortunate place in our curriculum. In fact, the processes of discipline that it provides are very closely allied to those that a man gets in the study of the law; and the law faculties themselves strongly recommend economics as introductory work, not only for its useful subject-matter, but for its training in the principles of thinking.

Finally, it seems to me that the very presence of you men here this morning in this room is a rather epoch-making thing. As I look back on the past thirty years in which I have been teaching economics, I do not recall anywhere in my experience such a gathering as this in a simple, informal way to discuss the primary question of the proper methods of teaching economics. It shows progress; it shows some common-sense; and also, I hope, it shows a certain kind of social solidarity among the various instructors who really need the help of one another in trying to solve the problems that confront us all.

PROFESSOR JOHN H. GRAY, The University of Minnesota:

Mr. Wolfe has raised the old question, which we have heard discussed in teachers' associations from time immemorial, whether the high school is a preparatory school for colleges or whether it is a preparation for life. Mr. Wolfe took that up very well; but there is one exception that I will venture to take to his remarks. It seems to me that it will be impracticable

for us, for a long time to come, to separate the different classes of students according to their future careers. I agree with his implication that it is better to have separate courses for those who are going farther with the work and for those who are not where this is possible. Under the circumstances, however, we have got to do the best we can, without separate classes, just as the high school has to do the best it can. It is a thing that we all regret; it is one that makes us rather humble. From the kindergarten to the university the American people have not been willing, as yet, to put enough money into education to do the work well at any stage. I think we are all laboring under similar difficulties.

In the institution that I am connected with, we have now introduced the study of economics in virtually every one of the faculties of the university. At present we are making the course open to any student of any faculty above the freshman class; but where one faculty offers a sufficiently large section, we are going to try to specialize, by taking a set of men who want one part of the subject and giving them that; and further, if they want something beyond an introductory course, giving them a special sort of advanced work also. I look with a good deal of hope to some of the experiments in that field.

We are about to try another experiment. We have not in the academic faculty admitted students in the freshman year. We are about to prescribe economics for the freshmen in one of the technical colleges, and then we shall have some opportunity to make comparisons. We are attempting to prescribe for these freshmen a course in economic geography, for the first half-year, to give the men some idea of the environment about them, and to follow this by a course in the elements of economics the second half-year.

Professor Frank T. Carlton, Albion College, spoke of the pedagogical problem which results from the various economic preconceptions of students, according to the various surroundings from which they come. To meet this situation the instructor must be himself so far as possible unprejudiced. Only by convincing the students that he is non-partisan can he accomplish much in his attempt to develop in them the power of wise judgment upon economic issues.

PROFESSOR WILLIAM A. SCOTT, The University of Wisconsin:

I have pretty nearly three hundred students, representing every class in the university from freshmen up to graduates. The latter are engineers. About 60 per cent. of the class are sophomores. The freshman portion is very small, consisting of what, in the University of Wisconsin, we call "special students"—mostly mature people who have broken into the university in one way or another and are not candidates for a degree, but who are trying to pick and choose in order to get certain things they want. I find also that every college and every school and nearly every course are

represented. Most belong to our general course in the College of Letters and Science. The commerce course is well represented. So also are the engineers. Members of the law and agricultural schools, and of various other groups are also there. In arranging the quiz sections for this course I did not find it possible to segregate each of these different groups. There is, therefore, a mixed crowd in every division.

These various groups of students come to the study of elementary economics with very different sorts of equipment. They differ not only in maturity of mind and ability to grapple with problems, but also in the specific information which they have, and in the extent of their preparation for the proper appreciation of the study of economics. The students in commerce who are members of this group have already had a year's work in what we call economic geography. They have also had a course in the economic history of England. A considerable number of the other students have had no history at all, in college; have had no course in economic geography or in any other subject that can be called preparatory to economics. Whether I ought to give these different groups of students exactly the same course is a problem about which I feel a great responsibility.

The students in the commerce course I can manage pretty well, because I know exactly what is going to follow, and what they have had before. But the engineering students and a great many of the others have special needs, though neither they nor I know precisely what they are.

The introductory course in our institution lasts three hours a week for one semester. I agree with Mr. Wolfe that no one should be satisfied with less than a year's work. Our problem, therefore, is so to treat our students during the semester that they will want more. It is an open question with us, whether we ought not to extend the course throughout the year, but to do so would involve a reorganization of our entire programme. I am in search of assistance in the solution of this and of the other problems I have mentioned and shall be very glad if you can render it.

PROFESSOR GEORGE G. GROAT, Ohio Wesleyan University:

It seems to me that the difference between theory on the one side and facts on the other has been made too clear. To contrast the teaching of theory as an aim and the teaching of facts as an aim possibly implies that we must choose between the two. I do not mean that this is necessarily a legitimate inference from the suggestions that have been made. In all probability those who have read papers or spoken would not agree with such a statement. It seems to me, however, that there is a danger in trying to think of the two things apart, or even suggesting that the two things may be thought of apart. For we cannot avoid dealing with economic theory if we deal with the facts in a systematic way. If, however, we deal with the facts

in a merely hit-or-miss way, we shall dismiss the student from the course with the idea that he knew as much before he came in as after.

Another point to which I should like to refer is the proposal to provide for those who are to continue their study of economics different instruction from that which is offered to those who do not go on. I do not think such a distinction is needed. Whether or not the pupil is going to follow the study of economics to the bitter end, he ought to have a good foundation; for even if he does not continue economics in the classroom, he is going to continue it in the world; he is going to continue to be in fact a part of the industrial system; and he needs a thorough groundwork of training. If his study is to be pursued only after graduation he has the line of thought at least indicated so that he may pursue it for himself. If he pursues it in the university, he has an elective course and may go into that. I do not think, then, that the student is injured by being given work which covers only a portion of the ground. If he wants more, and the other courses are elective, he may get more. If he does not want more, he does not have to go on, but he is entitled to the advantage of being started in the right direction.

More than that, if we try to bring in too many things—if for example, we try to teach the principles underlying tariff schedules, and the principles underlying various other fields of economics—is there not a danger that the student will think that because he is dismissed from the course and given a passing mark, he knows all that is necessary about those things? Have you not sent a man out into the world thinking that he is fitted for the solution of the banking question and the solution of any of the other questions of public importance without consulting experts, without going to the authorities, without adequate information on which to base a definite, clear conclusion of his own? He is inexpert and yet he is that most dangerous sort of person, a self-satisfied individual, thinking that he knows the field thoroughly.

On the other hand, we might take facts connected with banking, or facts connected with the tariff, or facts connected with any of the other fields, and use them as economic facts with which to build up systematic economic theory. If we use the facts purely to illustrate principles, and by that method interest the students and induce them to go on and take further highly specialized courses, we shall have accomplished something.

Professor Ulysses G. Weatherly, Indiana University:

It strikes me that one point has been hinted at in one of the papers this morning which is of a good deal of importance. How often are we to meet our students and how much continuity of thinking can we get out of them? As Mr. Wolfe suggests in his paper, that is a general educational problem, not merely a problem of teaching economics; but I believe it is one of the important factors in determining our success.

We have in Indiana University a term-quarter system. We give the course which we call Economics I three hours a week for the first two quarters. Our students are taking on the average six to eight different subjects, three or two hours a week. They come to us three times a week, and since they have five, six, or seven other interests that they are being initiated into in the same way, we cannot get any very consecutive or concentrated thinking in our subject. It is utterly impossible for us, with this multiplicity of studies, to secure concentrated attention. In the spring quarter we give a course of five hours a week. We get, therefore, onethird of the students' time, and it is remarkable what they do. I should judge that under these conditions the students are fully 50 per cent. more successful in grasping the fundamental principles of the science. This no doubt can be attributed partly to the fact that we get a little more mature class of students in the spring; but I attribute it very largely to the fact that we do get that concentrated attention which is made possible by a smaller number of subjects and by having greater continuity.

I was quite impressed by what Professor Gray said that we should do in the freshman year. I have always assumed as a matter of fact that we in economics had nothing to do with the freshman class. I still think the same, but I am very much interested in his suggestion, which is one I have had in mind myself. As an experiment I should like to try some day putting in the freshman year a course of geography or commerce or a description of industry, or something of that kind. If Professor Gray works it out at Minnesota, I should be very glad indeed to know his results.

PROFESSOR W. E. HOTCHKISS, Northwestern University:

I have been especially interested in the emphasis that has been laid on the necessity of combining theory with the practical facts. I do not believe that there is quite the distinction between theory and facts that some of the speakers have assumed. Last year I was confronted with the problem of teaching what is essentially an elementary course in economics to a group of business men, who had had practical experience in business. I assumed to start with that business men thought that theoretical economics was theoretical nonsense, and I went before them in a very frank, apologetic manner, and tried to explain to them that there was a good deal of arrant nonsense about economic theories: we realized that, and realized that most of the economists were up in the air when they ought to have their feet on the ground. But I had my eyes opened very decidedly after the first meeting of the class, by having a number of men, who appeared to be pretty good, clear-headed business men, come to me and say they were very much interested in the facts which I had touched upon, but it was rather a surprise to them to see that I was apologetic for giving them the theory. They said: "That is what we are hunting for. We deal every day with the practical side; we have to make decisions involving practical economic points, and we don't know how to make them. We don't know what principles may be involved in them. We want to know what these principles are." I thought I had been rebuked to a certain extent; but at the same time it seemed to me that here was good advice in regard to any course in practical economics, whether for business men or for college students: namely, to get away from the notion that theory is something that is to separate itself from the practical facts of our indusrial world, and that when you are dealing with theory you have got to deal with something that can only be worked out by writers away from the sphere of active business affairs.

I agree perfectly with what Mr. Groat said upon this subject. I think I should be inclined, however, to lay emphasis on the other side of the question. I do not believe that it is at all essential that we start out with the idea that we should give the pupil a perfectly symmetrical body of economic theories. I believe that a good many of us do not know exactly what we should give him if we tried to give him that symmetrical body. I think that the way we give the thing that we try to give is very much more important than what we give. When we deal with a subject we must first deal with the principles involved in it, and not simply with the economic facts. The description of an industry or the description of the building-up of an industry is practically useless unless we bring it out in such a way that the student knows that principles have been at work.

I do not believe we shall put ourselves in any embarrassing position with the students by not being absolutely sure of what the correct theory is going to be; but I think we should always approach every problem with the idea that there are principles involved. We are looking for them and we should make the students look for them, too. We are too prone, in approaching these subjects, to look for a dilemma—to think that we are under the necessity of doing either one thing or the other. I think we have a duty plainly before us to do both.

Professor R. F. Hoxie, The University of Chicago:

After Mr. Hotchkiss' appeal, it seems a very opportune time to ask the question: why is it that in our economic field we find this practical difficulty of bringing together the theory and the facts? If we ask this question we shall come near to the causes that have led to our chief difficulties: the difficulty of interesting the students and the difficulty of presenting our elementary course to them as a series of practical problems.

The explanation, I think, is to be found in the history of our science. If we regard economic science as an attempt to analyze and explain the business situation there are obviously two modes of approach, two conceptions of the business situation. We may view it as something quite objective—a great complex of institutions and activities—or we may look at this body of economic facts as in reality a mass of subjective phe-

nomena—a great complex of choices—in essence a valuation process. I believe that our consciousness of special difficulties in connection with the teaching of elementary economics coincides roughly with a change on the part of our theorists and textbook writers from the objective to the subjective conception and treatment of the economic situation. In other words I believe that coincident with the emphasis which has recently been placed on the idea that economic activity is to be interpreted in subjective terms our difficulties in presenting the principles of economics to elementary students in the form of practical problems and in a way to interest them have enormously increased.

To make this point clear let me illustrate historically. If you go back to the Wealth of Nations you find a splendid example of the objective analysis and explanation of the economic situation. Smith, as you remember, begins his analysis with the study of the simple productive factor labor, and then step by step, dealing always with familiar and for the most part with practical, objective phenomena, presents and explains the economic situation as a great process of production. The greatest increase in the productive powers of labor, he finds, arises from division of labor, but division of labor is limited by the extent of markets; examination of markets leads naturally to a consideration of the mechanism of exchange; the study of exchange merges easily into the treatment of value or price and the analysis of price into its component parts extends the study without a break on into distribution. Throughout, the student feels himself in touch with the familiar, the objective, the practical; and yet the whole is a theoretical fabric.

Contrast this now with the prevalent economic analysis of today. Here we have the economic situation treated primarily as a process of valuation. The student is plunged at the outset into a subtle consideration of subjective phenomena, and metaphysical distinctions. There is here no real place for the analysis in simple objective terms of the familiar productive process. The practical aspects of the economic situation have either to be postponed or artificially sandwiched in between divisions of the subjective analysis. The theoretical and the practical are now sharply distinguished. The subject can no longer be presented to the student as a series of practical problems. In their room he finds problems of an abstruse, psychological nature remote from the world of objective realities. Is it any wonder that we find it difficult to interest him and that he questions the practicability of elementary economics?

If this explanation of our difficulties is a true one the remedy is of course obvious. We must get back to the earlier, more natural, and objective treatment of our subject through simple and familiar facts and problems, emphasizing to a greater extent the productive aspects of the process of getting a living. We may well leave the analysis of economic activities

in terms of valuation, with its subtle, subjective considerations, I believe, to the work of more advanced classes where we have to deal with maturer minds

Professor Scott:

Another practical difficulty with us has grown out of the attempt to make Economics I a prerequisite to all other courses in economics. By one method or another students sometimes get into our advanced classes who have not had this course and they not infrequently get on perfectly well. I also find that it is not safe to assume that students who enter my class in money and banking, for example, and have had Economics I, know enough about value and other topics which they have studied to enable me to build upon such knowledge. I am obliged to go over these subjects again and I, therefore, sometimes feel that there is no good reason for making Economics I a prerequisite for the course in money and banking. Other members of our staff have had the same experience with their advanced courses.

Regarding the proper content of an introductory course in economics, I wish to say that the best results in my own experience followed a course I gave for a number of years in the history of economic doctrine. The first semester we studied the classical economists and the second, political economy since John Stuart Mill. Those topics were selected for study which clearly showed the evolution of the main body of modern economic doctrine.

Professor H. S. Smalley, The University of Michigan:

I should like to comment on a feature of the discussion which appeared not only in the original papers, but in one or two subsequent remarks—the idea that an instructor in political economy should be absolutely impartial in all his presentations; that it should be his aim not to instil conviction into his students, but simply to present to them different points of view and leave them to choose. I wonder if that is desirable. There seem to be several objections of considerable weight. In the first place it consumes a great deal of time, and with immature students it frequently leads to confusion of thought. Moreover, I wonder if it is often possible. Are there many of us who are so made that we can always be cold and impartial in our discussions? Can we stand before our classes like vitalized, enlightened talking machines and dispassionately present conflicting points of view to our students? Ought we to do so if we can? I do not think so. For my part I do not see why I should be teaching political economy if I am not to impress my convictions upon my students. It seems to me that if an instructor's aim is to cultivate independence of judgment in his students, a very good way of accomplishing the result is to give them an excellent illustration of it in his own treatment of questions. Of course, I do not mean that he should be too dogmatic, or that he should attempt to force his convictions on his students in the sense of making them feel that they must agree with his ideas or become intellectual outcasts. He must be generous, of course; he must be tolerant and broad-spirited; but if he does not give free expression to his own convictions in his work with his classes, the element of personality is very largely eliminated from his teaching. The result is always unfortunate, and especially so when the economic question under discussion is one in which an ethical element is present.

Professor A. S. Johnson, The University of Texas:

There is one thing that this discussion brings out rather forcibly. Everyone here, I believe, thinks that the ideal way to present elementary economics has not been found. Now, we ought to look for some objective results of this unsatisfactoriness of method, if it really exists. Do we find that our classes grow smaller and smaller year by year? Many of you have as many as three hundred students, others four hundred, and some possibly as high as seven hundred. How is it, if the students are not interested, that they keep on recommending the course in elementary economics as the one course in college that everyone must have? For I believe that it will be admitted that there is no course that is recommended to the sophomore class by the junior class so generally as the course in introductory economics, whether it is taught as a theoretical or a practical course.

I have talked with a good many hundred students, and the only ones who were convinced that the course was really of little use were students who had gone on to advanced work. It is after a student goes into advanced work that he comes to the conclusion that a course in elementary economics is useless.

Before we have any reason for assuming that we must have a radical revolution in the methods, a remark that the president made at the beginning of this meeting is well worth repeating here: Why not have the professors interested in the subject? It indicates one thing, that the method adopted should be one that interests the professor. If a professor is primarily interested in practical problems and practical economics, he will doubtless make a successful elementary course which is essentially practical. If a professor is enthusiastic on the theory of the subject, he will probably conduct a semi-theoretical elementary course with success. One's choice of the subject-matter must lie with the peculiar interest of the professor. No one method can be universally satisfactory.

PROFESSOR GRAY:

I am sure the conference feels under very great obligation to Professor Taylor for his very lucid, very entertaining, very instructive, and very suggestive address. I think he has furnished us material enough for a very interesting discussion, in which many of us will be inclined to take part. I do not want to give direction to the discussion, by anything that I might suggest, but it did impress me as Professor Taylor read that, while perhaps the work that he is doing may be highly effective and one of the most useful works that can be done in the department, there are a good many men, and I dare say a good many before me, who would look a little askance at such a burden and at least would not desire to put so much of their time on a single course as that. This disinclination is one thing we are suffering from. I probably voice the feeling of a large proportion of those here when I say that the average man who is already germanized feels that it is a little beneath his dignity to do this work in this fashion. I could not help feel this as Professor Taylor was reading.

Professor L. C. Marshall, The University of Chicago:

When Professor Taylor and I were speaking together this noon, he suggested that I should exhibit some copies of the syllabus used at the University of Chicago, and explain the methods followed at this institution. This seemed to me to be a suggestion which I ought to carry out; for while we in Chicago dissent rather strongly from some of the points of view presented by Professor Taylor, the actual methods used at the two institutions are largely in harmony. It may be best, therefore, to place these methods side by side so that they may be discussed and criticized together.

Two or three things should be stated by way of preliminary remark. The course in elementary economics at the University of Chicago runs for two quarters or terms of three months each, five hours a week. This is, as regards class hours, roughly equivalent to three hours a week for a year. We think that the daily meeting gives us a great gain in concentration, and I observe with interest that this opinion seems to be shared by the conference.

It should be stated, further, that the aim we keep before us in the course is threefold. One important consideration is discipline, since economics gives a unique opportunity for training in logical thinking. Another consideration is the fact that, for many, this elementary course is to serve as a preparation for advanced work. Accordingly, many matters which would otherwise be omitted are brought in. For instance, the wage-fund doctrine is discussed, not as a satisfactory explanation of wages, but as a preparation for such courses as those in socialism and the history of economic thought. The most important consideration of all is that in this course good training for citizenship may be given. Many take no advanced courses.

¹ Mr. Marshall distributed copies of the University of Chicago syllabus, explaining that they were mimeographed rather than printed in order to make changes for each new class easy, and thus to prevent the outline from becoming rigid.

The elementary course must give these students some ability to grapple with the problems of the industrial and social world.

So much by way of preliminary remark. As to our actual methods, probably the shortest way to state them is to formulate a series of principles which guide us.

- I. Our first principle is that freshmen are not to be admitted to this course. By insisting upon this we have students who have attained some degree of maturity and who, at the least, have "found themselves" in college life and have become accustomed to college methods. Then, too, this gives the freshman an opportunity to take useful descriptive courses in commercial geography, the economic history of the United States, the history of commerce, etc. Many avail themselves of this opportunity, although no positive requirement is made at present.
- 2. Personal contact of the student with the instructor is absolutely essential. Believing this we divide the course into small sections (our ideal is thirty) meeting with the same instructor five times a week. There is no general meeting of all the students in the course. Each instructor is expected to know every member of his section, to know definitely what kind of work every student is doing, and to give as much attention as possible to individual needs. All papers handed in are corrected, graded, and promptly returned to the student, and each instructor provides in addition for conferences at which students may discuss at greater length either class problems or questions that have arisen outside the class. It is surprising how freely students avail themselves of these conferences. One instructor told me that there have been days when his whole afternoon was given to this work. Fortunately for the instructor this is not the usual programme.
- 3. The instruction must be given by members of the permanent staff, men who give advanced work also. It may be of some interest to the members of the conference to know that according to a computation made about a year ago, the permanent staff was devoting 36 per cent. of its teaching time to the elementary course. It may fairly be questioned whether this proportion is not higher than is desirable. It is certainly sufficiently high.
- 4. Beginners in any science, and particularly in such a complex social science, are in great need of orientation. They need to get a view of the whole machine before they make an intensive study of any of the parts. Our work is framed to meet that situation. The first two days are devoted to an outline statement of the meaning of the struggle for adaptation, and to a broad survey of the significant features of the modern industrial system. Indeed, it may be said that for the first six weeks the study is really a process of orientation. We do not plunge at once into a discussion of value. We find that the student needs to "find himself" first, and accordingly we spend about six weeks on what is practically an investigation into the underlying principles of the modern industrial system. In order that

our readings may seem to square with our class discussions we call this a study of production, and talk of land, labor, capital, and organization, putting the stress upon organization. In passing, it should be stated that this part of the work cannot be called purely descriptive, nor is it conducted by the lecture method. Problems are studied and principles are developed by discussion, from the very start.

This process of orientation is not confined to getting a viewpoint for the course as a whole. The same method obtains when a study of any particular topic is taken up.

5. The course in elementary economics should be a presentation of a body of generally accepted doctrine. Whatever may be wise for advanced courses, the elementary course is no place for experimentation or for individual idiosyncrasies.

Of course there is sometimes a good deal of doubt as to what may be the generally accepted doctrine on some particular matter. If the committee of instructors in charge of the course cannot reach an agreement on that point, we seek a decision by asking what principles will seem to the students most nearly in line with their experiences and what principles can be presented most effectively with the reading, etc., that is available for our use.

We do not understand that our effort to present this generally accepted body of doctrine in any way commits us to dogmatism. Perhaps that can be shown best by a practical illustration. We differentiate between land and capital and do so rather emphatically. Nevertheless, we are very careful to show the student that another point of view has been taken by some authors; and we are equally careful to show the arguments in favor of this different point of view. That we are not subject to the charge of dogmatic presentation may be seen in the fact that our students not uncommonly reject our "generally accepted doctrine." Provided a student has good reasons to support his opinion this of course benefits rather than harms his class standing.

6. One of our most important principles is that descriptive material and formulation of principles should go hand in hand. It has been suggested several times today that to work for twelve weeks upon "dry-as-dust theory" and then take up for another twelve weeks "practical matters" is bad method. With this statement we heartily agree. We try to develop the theory, or (as I prefer to call it) the principles, by a study of the practical problems throughout the entire two terms. The course is a unit, not two separate parts. In other words we try to use the problem or laboratory or case method all the time, bringing in "practical matters" as an illustration of the principles which, with this method of treatment, become anything but "dry as dust." This by no means implies that we seek to give a course in "descriptive economics." Quite on the contrary, the emphasis is

upon the underlying principle, and mere memorizing of facts counts for but little

So far as I can now recall these are the principles we seek to follow. We do not always attain our ideals—far from it. We do feel, however, that the ideals are worth struggling for.

As I think back over the guiding principles I have just enumerated it becomes obvious that I said little about our actual classroom methods. If I may have a little more of your time I shall try to state the main ones briefly:

1. We use a textbook and collateral readings from a fairly wide range of sources. Here our method differs from that of Professor Taylor, in that we believe in considerable assignments of reading, varying from 100 to 125 pages a week, according to the difficulty of the selections. Both text and collateral reading are used to help the student in the class discussions where the outline of the course is developed. Indeed, the textbook is merely regarded as collateral reading in convenient form.

Free use is made of other materials. Government pamphlets are sent for. As one illustration, we secure the annual reports of the Commissioner-General of Immigration when we study that problem. Visits are made to the Board of Trade, the Stock Exchange, the Clearing House, and to various industrial plants. These trips are optional, and are held on Saturdays. With all this material the effort is to find principles rather than entertainment. It is, if you will, laboratory work.

2. The class meetings are to be characterized as discussions, rather than recitations or "quizzes." These discussions may be between student and instructor or may take the form of rather heated debate among the students. Sometimes the classes seem a bit disorderly, I fear.

The lecture is used, but it occupies a distinctly subordinate position. I think I shall be speaking correctly when I say that the lecture is used for three purposes: to open up a new topic, to expound a topic upon which reading is not available, and to sum up discussions.

The papers presented in class are of two kinds. One is the ten-minute examination, which is nearly always upon some distinct problem, and not a memory test. We also make frequent use of what we call "assigned problems"—that is, problems assigned in advance for work out of class. In working these problems out the students are encouraged to consult with one another. This method has been found to work well in practice. Frequent rumors have reached us of groups of students discussing the various issues suggested by an assigned problem for hours—the very result that was hoped for.

3. The syllabus is an important part of our machinery. This syllabus is radically different from that used by Professor Taylor. He uses his syllabus as a means of presenting definitely formulated doctrine and then

giving drill in logical reasoning, as I understand his presentation. Our syllabus, on the other hand, is designed simply as a guide. The formulation of doctrine we hope to arrive at through class discussion. Our method is thus almost purely inductive, and the syllabus is a means of preventing the discussion from going too far afield.

If you will glance at the sample of the syllabus you will observe that practically the entire space is given to problems stated in such an order as to lead to the formulation of principles. Classified, these problems will be found to be of three kinds. A few of them cause the student to think back over the ground already covered and connect his present study with the previously developed principles. Others, still fewer in number, raise issues that the student cannot at the time answer. They are designed to pave the way for future discussion. The great majority of the problems deal with interpretations of the modern organization of society and with popular fallacies. Feeling as we do that training for citizenship is one of the aims of the course, much stress is placed upon the discussion of these fallacies

I trust I have made it clear that we seek at all times to deal with actualities. The students are constantly urged to remember that economics is applied common-sense and that theory has, in this course, at least, little justification save as it serves to connect with everyday life. The thought has been expressed many times today that students are apt to leave a course in elementary economics with the feeling that it was all unpractical and as it has been put, "up in the air." If our students here have this feeling, I for one, feel that our instructors, and not the subject, must bear the responsibility. The subject is intensely practical if properly presented.

4. Every effort is made to prevent the instruction from becoming rigid and mechanical. While all our instructors follow the same outline or syllabus, assign the same readings, and give approximately the same apportionment of time to the various topics, each instructor is left to his own initiative in his methods of presentation, which should vary for different combinations of students. The instructors meet several times a week and discuss methods and principles but when it comes to class presentation the individuality of the instructor is allowed full sway.

I hardly know what to say in closing this unduly long presentation of our methods. Of this I am certain: the department here feels that the elementary course is one of the most important (if not the most important) courses in the whole department. This in no way underestimates the importance of graduate work, for surely the advanced work must be based upon thorough preparation. I am also certain of another thing. The men in charge of the elementary work do not have the feeling that they are burdening themselves unduly in giving this course the large amount of time they do. The work is worth while for the training given seems worth while. The course is well worth any instructor's best efforts.

Professor Gray:

The thing that impresses me most at every stage, as the methods of the different institutions are described, is the tremendous amount of work involved. I think we should all agree—at least I am firmly of the opinion—that the elementary course is quite the most important thing in the department—that on which all the rest must depend; but we still are hampered by our local needs, which are not unlike those that Professor Scott spoke of this morning. Take, for instance, the complexity of the programme. We have nominally seven sections at Minnesota—six sections conducted by our regular teaching force—with a registration of more than 300. But we find that certain of those sections, because of the complexity of the programme, are unduly large. To have all of the sections small we should have to have a very much greater number of sections than six.

Again, I am impressed with the fact that perhaps we are trying to give too many courses. Yet we might get into trouble with our Board of Regents if we tried to give fewer.

One of the features in this paper that struck me was the fact that, at Michigan, they have 225 persons in two courses. Professor Taylor probably feels (and we share the feeling) that it is desirable that each instructor should have some time left to do some other courses. If the director of the course is going to spend the whole afternoon in conference, as Professor Marshall has suggested is possible; if he is going to have to read the papers in that course, it is going to take the major portion of his strength. But few men with full professorial rank will care to put so nearly all their lives into a single course, and that an elementary one. Truly it is a serious question that confronts us.

Professor A. B. Wolfe, Oberlin College:

I should like to add a word from my own personal experience on this topic of the demands of the elementary course on the time of the teaching staff. We have at Oberlin at present 110 students in elementary economics, with two instructors. I give to this course four hours each week, and my colleague gives two. I have, in addition, seven other hours of teaching work; he gives three other courses. I confess I do not know how I could carry out Professor Taylor's programme unless the other courses were cut down. I have sixty students in sociology and something over thirty in labor problems, both of which courses I think it very essential to give to the college student. I think, too, that courses in public finance, economic history, money, and banking, which my colleague is giving, ought to be given. I ask your sympathy for the teacher in a small college. He is in a very much more difficult place than the instructor or professor in a university where it is more possible to divide classes into numerous sections.

I was happy to find that I did not differ from Professor Taylor so

much as I feared I should. It seems to me that in his illustrative problems he introduces in an admirable manner just that knowledge of the material economic environment which I think the student should have, although he disavows doing that purposely, or primarily. He does it, too, in the best way by connecting it constantly with the theory or the principles in the light of which this economic environment must be interpreted. There certainly can be no understanding, no real knowledge, of the economic environment without an understanding of these underlying principles.

One other word I should like to say, with regard to the question of collateral reading. Even if we have to make the course somewhat longer, by adding perhaps an hour a week to it, I believe that we can very profitably give students a large amount of outside reading, provided we can find the proper library facilities. One of the things which the college student ought to acquire is the ability to get the heart out of the printed page without reading every preposition and every period. I am a little afraid that if we adhere too strictly to Professor Taylor's method, we shall fail to develop this power of rapid reading.

PROFESSOR SCOTT asked if Professor Taylor would explain the use of the textbook at the University of Michigan.

PROFESSOR TAYLOR:

This textbook is now little more than a book of readings supplemental to the one already described which is printed for the special use of the classes. Our own outlines are now elaborated so far on the plans laid down that it is impossible to use them effectively, if we follow closely any existing textbook. They are not, however, sufficiently developed to free us from dependence on other printed material; and, as our own book of readings is still quite incomplete, a textbook is put into the hands of the students to meet this need. An additional consideration which weighs with us in requiring the student to have a text, is that, in the present incomplete and inconsistent state of our own outlines, we feel that it would be unfair to the student to send him away without something more comprehensive and complete.

Professor Scott then asked about the part played by the lecture in the Michigan system, and remarked that at the University of Wisconsin one purpose of the lecture is the summarizing of the work of the course.

PROFESSOR TAYLOR:

I am not at all satisfied that we are making the best possible use of the lecture. As already brought out, we think of it chiefly as a means of introducing the student to new topics and of helping him to master particularly difficult matters. I do, however, believe that it should be kept in a pretty close relation with the work which the students are doing on the

basis of the outlines. I like Professor Scott's suggestion that it can be advantageously used to summarize the results of the study of several weeks, and I shall try to carry out this idea.

PROFESSOR FAIRCHILD, Yale University, asked for information in regard to the character of the readings used by Professor Taylor.

PROFESSOR TAYLOR:

At present the readings largely consist of rather inaccessible materials on matters which are commonly neglected in current economic texts. Thus, we have a reading from Adam Smith's discussion of the Mercantilist doctrine, bearing particularly on popular fallacies with respect to money; we have another from Whately to bring out the co-operative character of the present economic order; another from Say, discussing and explaining the principle that demand must in the end coincide with product; and one of considerable length from Professor Emery, bringing out the economic function of speculative trading.

It may be interesting to add that as an incidental object which we held in mind in selecting these readings, an endeavor was made to get materials from early writers rather than those of our own day. I have sometimes felt that the economist had much praise for Adam Smith on his lips, but little in his heart, seeing that he makes very little effort to bring his students into contact with the actual work of the great master. I am especially disposed to carry out this idea of getting readings from classic writers, as a means of bringing out the continuity of economic doctrine. One of the greatest drawbacks, in my judgment, to the progress of political economy in the good opinion of educational authorities, as also in that of practical men, is the disposition shown by those who pursue the subject to write and talk as if nothing from the past were worth preservation-as if we must every few years give up all that our predecessors had done and take a fresh start. I have no patience with this idea, and I think a very important part of our task as teachers is to get the student into a better way of looking at the matter-to make him feel that there is a constantly growing body of economic doctrine, having real continuity from the beginnings of economic thought to the present day.

PROFESSOR GROAT:

It is impracticable to try to agree on an appropriate plan of instruction at once and put it completely into effect. But do we need, for that reason, to reject these suggestions? Should we not rather take them and do the best we can? If our sections are too large to quiz three times a week, is it not possible to quiz them twice a week? If they are too large to quiz twice a week, is it not possible to quiz them once a week? Is not a quizzing once a week better than none at all? There are possibilities for the

plan without regard to the size of the section or the number of students in the class. At least let us try as best we can, and then attempt to emphasize our shortcomings and failures to our president, or our executive committee, or our board of trustees, showing how hard we are working to accomplish something worth while, and how we are failing, not because of our own confusion in methods, but simply because we are trying to do the impossible. From that point of view we might convince them that we need more help, to enable us to divide our sections into smaller groups.

PROFESSOR ROBERT C. CHAPIN, Beloit College:

The problems that we have been discussing are largely, after all, general problems of pedagogy, and one of the pedagogical features that everybody recognizes is the personality of a teacher. The admirable method of Professor Taylor seems to me to be especially excellent for the opportunity that it gives a teacher to impress himself and the quality of his mind upon his pupils. I hope very much that he and his associates may develop the method in such a way that its resources may be at the service of those of us who have not the time, in virtue of the volume of other work imposed upon us, to work out a method which requires the full time of a really great man. Meantime it does not behoove us to be too much discouraged, because we still have the resources of personal impression that have been employed, even in teaching this abused economics, with a good deal of success by a good many men. There is opportunity to impress ourselves through the lecture and the quiz and the informal conference, and through as wide a use of the problem as we can make, while we are waiting.

I confess that I have been a little cheered as I have heard the difficulties and the embarrassment of riches in the way of students that beset the instructors in the great universities, and I have found that my own little troubles in my college were after all not so different as I feared they were from problems that confront all teachers who handle classes in elementary economics.

Professor M. S. Wildman, Northwestern University (formerly of the University of Missouri):

A point or two have come out in the discussion this afternoon which lead me to say something about the experience of the University of Missouri in the last few years.

Probably you all know that there has been some difficulty there in getting the funds that were necessary to keep up with a growing university. That fact has had its influence in one way or another in the solution of several of these problems. In the first place, the question of the three-hour and two-hour course in the case of freshman and sophomore work has been solved by the practical abandonment of that arrangement and the substitution of the five-hour course in those years, with a maximum of eighteen hours

and a standard of fifteen for three subjects. Moreover, the present intention is to go as fast as possible toward a standard of twelve hours for the juniors and seniors. The reasons for the changes are primarily pedagogical, but incidentally they are forced upon the institution by lack of teaching force.

In the case of economics the registration has grown in the last four years about threefold; and with its growth has come an insistence upon the relative importance of the introductory work, and the relative subordination of the advanced work. Thus there has been a steady reduction in the advanced courses offered; so that the teaching force has been distributed in a very different manner in these four years. Four years ago about one-third of the teaching force was devoted to the introductory course; today more than two-thirds is occupied in introductory economics.

Professor Gray: You would admit that a movement of that sort rather destroys the possibility of doing graduate work? It may result from the old-fashioned standpoint of general education and the liberal culture, or making citizenship one of the most useful things we can do, but it is not leading men up to the higher degrees.

Professor Wildman: The University of Missouri is not much worried about the higher degrees. They are looking forward to doing the largest amount of college teaching possible, with the emphasis upon the citizenship of the state, and there is very little graduate work attempted in economics.

Professor Gray: Does not that system exclude the possibility of meeting the public's demand for preparation for business and for what we call practical business courses?

Professor Wildman: Yes, they have that demand; and your question is answered by the simple proposition that when the Legislature is ready to make an appropriation for business courses the university is ready to give them. But in the meantime no business courses are given or attempted. Four years ago there was a disposition to enlarge in the direction of courses in commerce, and the time of one man was chiefly devoted to such branches as commercial geography and industrial history; but one by one those courses have been lopped out to liberate the time for introductory theory or principles. At present there seems to be little demand for the commercial branches.

Professor Charles H. Judd, Department of Education, The University of Chicago:

I injected myself into this discussion for the sake of laying before you the fact that Section L of the American Association for the Advancement of Science would be a very proper body to co-operate with in your investigation of the teaching of economics. It is the newest section of the American Association, and its title is Education. It held a conference,

which some of you may have attended, at Baltimore last year, in which there was a discussion of the general problems of college education. That section went farther this year and has on its programme in Boston two conferences which will take up various problems that may be made subjects for scientific investigation. Material is being collected with reference to the elections made by college students and the relation of these elections to their future choice of occupation. That section is very anxious indeed to get in contact with people who are genuinely discussing educational problems. I think that will be a very fortunate opportunity to push the problem you wish to take up, for the problems which you are discussing are general ones of interest to other departments as well as your own. I suggest therefore, with the permission of this body—I do not wish to inject into this conference any discussion not germane to your topic-that it might be well for you to appoint a committee of that sort to ask the co-operation of Section L, through one of your members who would naturally be connected with that association. At the coming meeting of Section L you could suggest your problem as one of the problems for general consideration. I dare say many of you recognize the general character of this par-These matters of method of organizing courses are problems in which all of us are interested. I should like to see them taken up in detail in all departments. I do not know that there are very many departments that take themselves seriously enough to have this sort of a conference; but if the character of this conference could be widely known to other teachers in universities, it seems to me that it would be very helpful in their formulating material for their own use.

I have had great pleasure in attending this meeting, because I am convinced that you are in sympathy with the scientific study of education. I have been in communication with many people who did not have this conversion which you have evidently passed through and which you manifest by taking up the kind of work that you have taken up here.

I was most impressed this afternoon with the fact that you people are literally making history from the point of view of my department. I do not know any other group of university men who have come together and spent the time you have spent in deliberative conference on the methods of teaching your subject in a collective way, as I find you have done today. I do not know a group of men in any department who have taken such a step as you took when you appointed a committee to go ahead with this matter and see what can be done to perpetuate the work. I have made arrangements with your chairman so that as soon as that committee is appointed we in Education shall know it; and if your committee does not do something about it, the departments of education will contribute at least the stimulus necessary to see why it does not do something very vigorous.

It seems to me that the contributions of this conference to the methods of teaching economics ought to interest all heads of departments. fact is that young instructors in American universities cannot afford to spend their time on problems of method. The system of promotion is such that they must do other things to secure advancement, even within their own institution; and certainly nobody outside of the institution would know about such work on methods. A young instructor simply could not devote the amount of time Mr. Taylor devotes to that sort of organization. The young instructors have to devote their time to their research or to committee work. They are supposed to have their time entirely occupied with conventional duties. The result is that we are not having these educational discussions because the younger men are not doing this work and the heads of departments are above it. We have made another mistake, namely, that of leaving subjects to the high-school people, who are not competent, because they have not had the training as graduate students which would interest them in this kind of work. I am gratified to see the head of one department devoting himself strenuously to the business of organizing a course of study. I think we could have some valuable discussion of the duty of the head of the department; and I think we shall come to recognize, before many years, that it is the men who are making the most genuine contributions to the departments who are doing the most profitable work.

By unanimous votes the conference requested Chairman Gray to appoint two committees. One committee is "to take into consideration the advisability of holding another conference and, if deemed best, to call it." The other is "to undertake a comprehensive statistical investigation of the present status of the teaching of economics in the United States." These committees were duly appointed 1 and have taken charge of their work.

The conference was attended by the following teachers of economics from the institutions named: Albion College, F. T. Carlton; Beloit College, R. C. Chapin; Cornell College, H. H. Freer; Emory College, E. H. Johnson; Indiana University, U. G. Weatherly, U. H. Smith; Northwestern University, W. E. Hotchkiss, E. D. Howard, M. S. Wildman, F. S. Deibler, and F. R. Mason; Oberlin College, A. B. Wolfe; Ohio Wesleyan University, G. G. Groat; University of Chicago, J. L. Laughlin, L. C. Marshall, William Hill, John Cummings, R. F. Hoxie, C. W. Wright, and J. A. Field; University of Illinois, Simon Litman; University of Michigan, F. M. Taylor, H. S. Smalley, and C. E. Parry; University of Minnesota, J. H. Gray; University of Mis-

¹ Chairman Gray announced the following committees: Committee on Future Conference, Messrs. L. C. Marshall, F. M. Taylor, and A. B. Wolfe; Committee on Statistical Investigation, Messrs. L. C. Marshall, R. C. Chapin, and F. R. Fairchild.

souri, Spurgeon Bell; University of Rochester, E. B. Patton; University of Texas, A. S. Johnson; University of Wisconsin, W. A. Scott; Western Reserve University, C. C. Arbuthnot; Wheaton College, Elliot Whipple; Yale University, F. R. Fairchild.

More than a score of persons who were unable to be present were represented by letters. Several of these letters, which contained suggestions of educational problems or brief descriptions of methods in use, were read during the conference. Many of the writers expressed the hope that the proceedings of the conference should be made available in published form.